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Records and descriptions of African Otitidae and Platystomatidae (Diptera)*

by

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SYNOPSIS

This paper comprises records and descriptions of African Otitidae and Platystomatidae, based on material in the American Museum of Natural History. The following new species of Platystomatidae are described: *Engistoneura currani* (Liberia), *Lophoplatystoma congolense* (Congo), *Paryphodes duus* (Liberia), *Peltacanthina liberiensis* (Liberia).

In order to further my projected revision of African Otitidae and Platystomatidae, a collection of material in those families was borrowed from the American Museum of Natural History through the kind offices of Dr. Petr W. Wygodzinsky. This material included most of that reported upon by Curran (1928), as well as additional material from the Congo and other regions, notably Liberia. I am able to revise a few Curran determinations, add some Congo and other records, and describe the following new species of Platystomatidae: *Engistoneura currani* (Liberia); *Lophoplatystoma congolense* (Congo); *Paryphodes duus* (Liberia); *Peltacanthina liberiensis* (Liberia). The types of all of these have been returned to the American Museum of Natural History. Notes on the previously unknown male of *Pseudoscholastes marshalli* Frey (Platystomatidae) are also given.

Family OTITIDAE
Subfamily *ULIDIINAE*
Physiphora Fallén

Physiphora aenea (Fabricius). 1, Natal (Durban).

P. obscura (Hendel). 1, Rhodesia (Penkridge).

P. smaragdina (Loew). 8, Congo (Boma; Stanleyville), Liberia (Ganta), Rhodesia (Salisbury).

Family *PLATYSTOMATIDAE*
Subfamily *PLASTOTEPHRITINAE*
Atopocnema Enderlein

Atopocnema marginepunctata (Enderlein) (fig. 5, wing). 2, French Equatorial Africa (Zemio, 5° 45′ N, 25° 15′ E; Bangassou).

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Oeciotypa Hendel

Oeciotypa hendeli Lindner. 1, Rhodesia (Matetsi, 1-12-1933. R. H. R. Stevenson).

Plastotephritis Enderlein

Plastotephritis seriata Enderlein (fig. 4, wing). 1, Liberia (Bendu, Robertsport, 2 Feb.—5 March 1943, F. M. Snyder).

Subfamily *TRAPHERINAE*

Lule Speiser

Lule corioptera Speiser. 2, Congo (Burunga), Rhodesia (Lomagundi).

L. stellata Enderlein. 2, Liberia (Robertsport).

Subfamily *PLATYSTOMATINAE*

Bromophila Loew

Bromophila caffra (Macquart). 2, Rhodesia (Umtali).

Clitodoca Loew

Clitodoca fenestralis (Macquart). 15, Cameroons (Edea), Congo (Lukolele; Medje; Niangara; Uele River, 3° 30′ S, 23-30° E). The var. *unigutta* Enderlein (originally proposed as *unigatta*) is apparently no more than phenotypical.

Coelocephala Karsch

Coelocephala stigma Hendel. 7, Liberia (Du River Camp No. 3, in chimneys of nests of *Macrotermes natalensis* (Hav.); Gbanga; Memeh Town; Moala).

Elassogaster Bigot

Elassogaster brachialis (Rondani). 43, Congo (Boma; Coquilhatville; Kasonsero; Lubumbashi, Katanga; Stanleyville), Liberia (Du River Camp No. 3; Ganta; Memeh Town; Robertsport); Rhodesia (Bulawayo; Gatooma; Msenge Rivr, Eldorado; Salisbury). The examination of a considerable amount of material leads me to believe that *E. niger* Wulp and *E. vanderwulpi* Hendel are synonyms, both falling well within the range of variation of *E. brachialis*.

Engistoneura Loew

Engistoneura catogastera (Bigot). 6, Liberia (Bendu, Robertsport; Du River Camp No. 3).

Engistoneura currani n.sp.

Related to *E. lugens* (Fabr.), with which it agrees in having yellow stripes of ground colour on mesonotum, scutellum dark brown centrally and yellow marginally, and only one hyaline band on wing apicad of *tp*, but from which it differs markedly in wing pattern (cf. Hendel, 1914, p. 14, fig. 264).

Female. Length of wing, 9·7—9·8 mm.

Head, thorax, and legs yellowish, with dark brown to blackish markings as follows: Narrow upper margin of occiput; parafrontal stripes occupying space between *vte* and *vti* above, narrow orbital margin along midfront, nearly meeting over antennae, and continued downward onto parafacials to a point where the parafacials become quite narrow; ocellar triangle; small spot at lower end of antennal grooves; broad subtriangular area in middle half of oral margin; middle part of labrum; apical half of palpus; tip of proboscis; pair of broad dorsocentral stripes in full lengthof mesonotum; very narrow lateral margin of mesonotum; basimedian roundish spot on scutellum; narrow stripe on mesopleuron above *mspl* bristle; spot on metanotal callus between root of wing and spiracle; margins of spiracle; pair of broad stripes on metanotum from basilateral corners of scutellum and abdomen respectively, separated medially by amount of yellow equal to their width; apical one-third and most of posterior surface of fore femur; lower apices of middle and hind femora; all of fore tibiae and approximately apical one-sixth of middle and hind tibiae; apical three segments of all tarsi. Abdomen dorsally subshining metallic bluish black, a little pale at extreme base; venter yellowish. Hairs and bristles black, except white hairs on pteropleuron, prosternum, basal half of fore coxae, ventral surfaces of hind femur and tibia; basal half of dorsum of abdomen. Basal two tarsal segments, except for small black apical bristles, covered with pale yellowish hairs.

Head with front square, shining except for silvery tomentose orbito-antennal spot; face dull, with narrow flat central ridge in upper three-fifths, in profile gently angularly concave; parafacials very narrow below; arista with plumosity as broad as third antennal segment; fronto-orbital bristle very small, hairlike.

Thorax very lightly pruinose; mesonotum, dorsum of scutellum, and mesopleuron slightly roughened; chaetotaxy: 1 *mspl*, 1 *h*, 2 *ntpl*, 1 *sa*, 2 *pa*, 1 *prsc acr*, 3 *sc* (apical pair one-fourth longer than laterals).

Wings with brown pattern and venation as in fig. 6; 3d posterior cell nearly wholly light brown; squamae and fringes brown; halter yellow.

Male: Not known.

Holotype and one paratype, females, Du River Camp No. 3, Liberia.

E. obscura Hendel. 4, Cameroons (Edea).

Euthyplatystoma Hendel

Euthyplatystoma seriatopunctatum (Enderlein). 2, Congo (Stanleyville), Uganda (Entebbe).

Lophoplatystoma Hendel

Lophoplatystoma acarigerum (Speiser). 1, Rhodesia (Umtali district).

Lophoplatystoma congolense n.sp.

By having only bristly hairs rather than spines on lower surface of fore femur, long aristal hairs, and by lacking blackish midfrontal spot, this species is close to *L. hirsutum* Hendel, from which it differs chiefly in lacking erect pale hairs on dorsum of scutellum and in different vestiture of fore tibia.

Female: Length of wing, 6·45 mm.

Wholly dark brown to blackish; only face, anterior front, lower orbits, and small part of antennae yellowish.

Head with front parallel-sided, as long as wide, with silvery grey pruinosity; face yellowish, with pair of quadrate shining black spots at lower end of antennal grooves, laterally touching margin of face but removed from oral margin by nearly half their length; labrum black; narrow lateral oral margin black; parafacials very narrow; distinct blackish orbito-antennal spot; occiput grey pruinose, with white hairs; antenna with third segment oval, 1·5 times as long as wide, extreme base of third segment and anterior apex of second segment yellowish; arista and hairs brown, total width of plumosity approximately equal to width of third antennal segment; palpus practically a round disc, only slightly longer than wide, dull black with narrow apical and lower margin grey pruinose; chaetotaxy: 1 *vte*, 1 *vti*, 1 strong *fo* opposite anterior ocellus, 2 long black genals.

Thorax silvery gray pruinose, strongly irrorate with darker spots on mesonotum and mesopleuron; covered largely with white hairs below, but those of mesopleuron and mesonotum blackish; scutellum with width to length as 7 : 4·5, outline circular, wholly gray pruinose and lacking erect dorsal hairs; prosternum with numerous white hairs; chaetotaxy: 1 *mspl*, 1 *h*, 2 *ntpl*, 2 *sa*, 2 *pa*, 1 *dc*, 1 *acr* short distance anterad of *dc*.

Legs blackish, extreme base of fore basitarsus orange-colored; most of femoral hairs longish, white, those of fore femora on dorsal part, a few at lower base and four long bristly hairs on apical half of posteroventral surface black; fore tibia covered with appressed silvery tomentum in dorsal half of whole length; ventral half of fore tibia with short decumbent dark brown hairs; near margins of ventral and dorsal parts of fore tibiae a few semi-erect black bristly hairs; middle and hind tibial hairs short, those of middle tibiae wholly black, those of hind tibiae black dorsally, whitish below; tarsal hairs wholly black; fore basitarsus strongly laterally compressed.

Wings dark brown, numerous subequal hyaline spots in basal part, in apical part as in fig. 1; *ta* a little apicad of middle of discal cell; squamae short, white; lower squamae with white fringe, upper one with margin and fringe dark brown; halter with yellowish stalk, knob with base blackish, soft apical part yellowish.

Abdomen dorsally with silvery tomentose spots, those of first to third segments quite irregular, those of fourth segment small, mostly roundish and separated from each other by more than their diameters; segments 2 and 3 with four well-developed black marginal bristles; whole dorsum with rather abundant, longish white hairs; venter dark brown with short dark brown hairs; ovipositor short, dark brown.

Male: Not known.

Holotype, female, Walikale (1° 25′ S, 28° E), Congo (no other data).

Neoepidesma Hendel

Neoepidesma fascipennis (Macquart). 1, Natal (Durban).

N. subvicina Frey. 1, Congo (Kamanida).

N. thoracalis Hendel. 2, Congo (Kamanida).

Paryphodes Speiser

Paryphodes conspurcatus Hendel. 1, Congo (Boma, det. as *P. pantherina*).

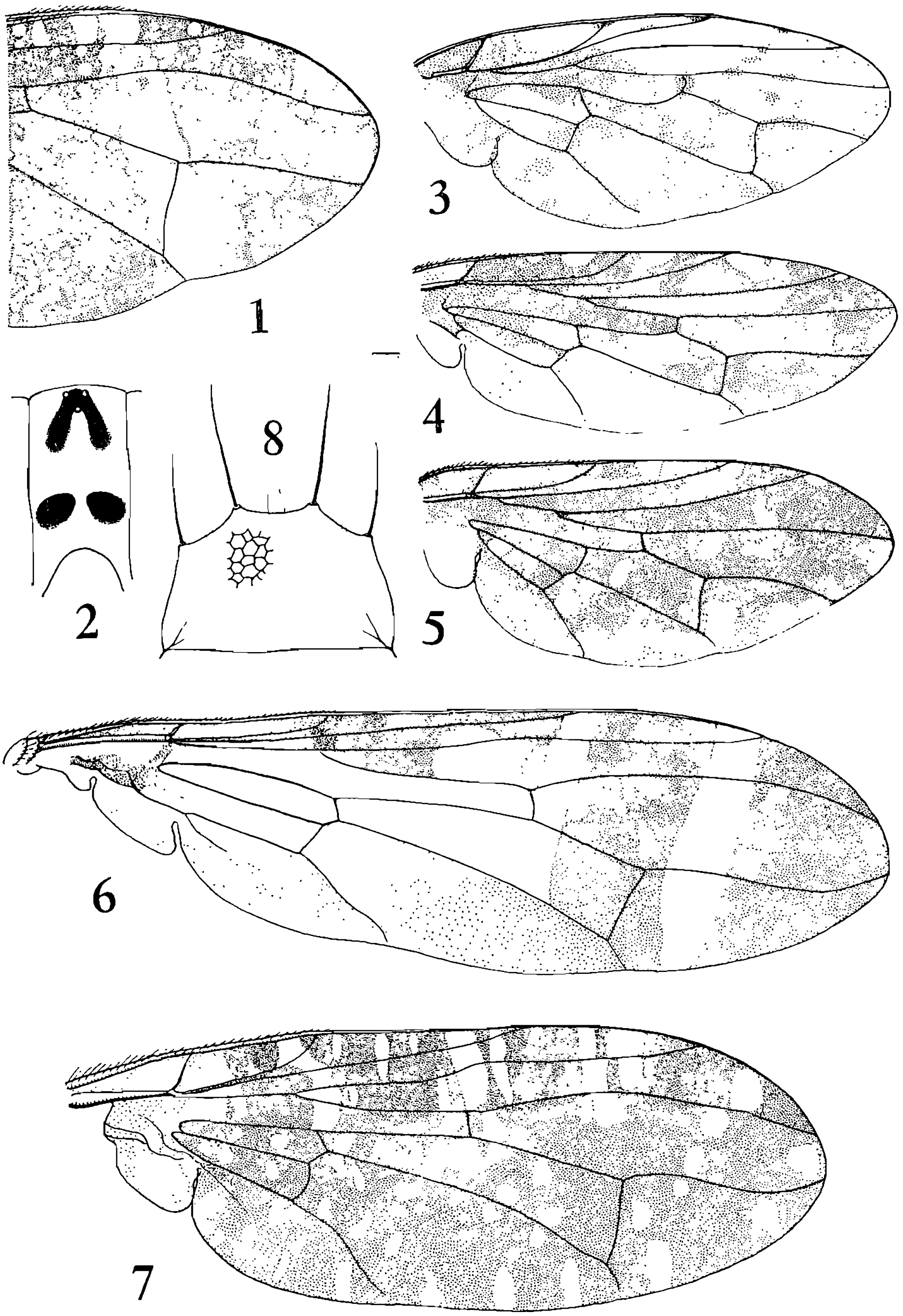

Fig. 1. *Lophoplatystoma congolense* n.sp., apical part of wing. Figs. 2, 3. *Paryphodes duus* n.sp., front (2), wing (3). Fig. 4. *Plastotephritis seriata* End., wing. Fig. 5. *Atopocnema marginepunctata* (End.), wing. Fig. 6. *Engistoneura currani* n.sp., wing. Figs. 7, 8. *Peltacanthina liberiensis*. n.sp, wing (7), scutellum with indication of part of sculpture (8).

Paryphodes duus n.sp.

This species is one of two with broadly yellow scutellar border (or at least with two broad yellow lateral stripes and narrow apical border) and with discal cell of wing strongly narrowed basad of *ta*. These two species may be distinguished as follows:

(*a*) Marginal cell traversed by three brown spots; pterostigma wholly brown in male, with two large brown spots in female; hind femur of male wholly yellow, in female black above and in anterior basal half; hind tibia of male with only small brown spot in apical anterior fourth, in female black in apical one-third, dorsal line, and preapical narrow band; front with narrow, slightly interrupted brown band attaining orbits; lower occipito-orbital bristles small, in region of black spot only slightly enlarged . . . . **P. tigrinus** (Enderlein)

(*b*) Marginal cell and pterostigma wholly yellowish, with only faint markings (fig. 3); hind femur of female with brown spot at extreme base dorsally and with two fusiform dorsal streaks in middle and apical third respectively, not connected to each other; hind tibia of female with dorsal black line, narrowly interrupted at basal fifth; front as in fig. 2, with median spots obliquely oval, narrowly separated from orbits; 3 to 5 lower occipito-orbital bristles in area of black spot directed forward, as large as genal bristle; male not known .. .. **P. duus,** n.sp.

Holotype, female, Du River Camp No. 3, Liberia (no other data).

P. leucurus Speiser. 3, Cameroons (Ekona, nr. Kamerunberg; Elephantensee, Kumba), Liberia (Memeh Town).

P. lineatus Hendel. 2, Cameroons (Ekona, nr. Kamerunberg; Tiko, nr. Kamerunberg).

P. nigristigma (Enderlein). 1, Congo (Lesse, 0° 20′ N, 29° 40′ E).

P. perforatus (Enderlein). 3, Cameroons (Missellele, nr. Kamerunberg).

P. similis Hendel. 1, Congo (Stanleyville).

P. tigrinus (Enderlein). 5, Cameroons (Elephantensee, Kumba; Tiko, nr. Kamerunberg), Congo (Boma), Liberia (Du River Camp No. 3; Reppos Town).

Peltacanthina Enderlein

Peltacanthina bicolor (Bezzi). 1, Congo (Medje).

P. cribrosa Enderlein. 4, Rhodesia (Gwelo; Mazoe).

P. gamma Hendel. 10, Liberia (Bendu, Robertsport, 25 April 1943, F. M. Snyder).

Peltacanthina liberiensis n.sp.

Apparently related to *P. verberiger* Speiser, but male lacks aristal palette, and *P. epixantha* Hendel, but that species has six scutellar bristles. There may be a relationship with *P. monotaenia* Hendel, *P. minor* Hendel, and *P. pectoralis* (Loew), but those species have many more wing spots.

Male: Length of wing, 7 mm.

Ground color of thorax and abdomen reddish brown, on lower pleura and on sternum pitchy blackish; head (fig. 9) tawny yellowish, brown on ocellar triangle, spots at lower end of antennal grooves, rather small supracervical spot, and sides of labrum (lightly); tip of palpus lightly browned. Abdomen with margins of sclerites narrowly blackish. Legs with coxae and femora pitchy, tibiae and basal two tarsal segments yellowish; apical tarsal segments dark brown.

Head (fig. 9) with front before ocelli half again as wide as long, flat but with crumpled or weakly irregularly undulate appearance, subshining; face strongly concave in profile, lower parafacial very narrow; hairs and bristles as in figure, black; arista brown at base, remainder blackish.

Thorax with dorsum brownish gray pruinose, except around margin where pruinosity becomes light to lacking, and invested with very short blackish hairs, which near posterior margin and on scutellum become brownish; small pits at base of hairs. Scutellum as in fig. 8, entire dorsal surface with ridges in reticulate pattern. Pleura lightly pruinose, with short black hairs on mesopleuron and sternopleuron and patch of quite long black hairs on pteropleuron; mesopleuron with low pattern of coarsely reticlate ridges, pleura otherwise practically smooth. Prosternum with numerous rather short brownish hairs. Chaetotaxy: 1 *h*, 2 *ntpl*, 1 *sa*, 2 *pa*, 1 long and strong pair of *prsc acr* spaced slightly farther apart than apical *sc*, 2 pair *sc*, 1 long upper *mspl*.

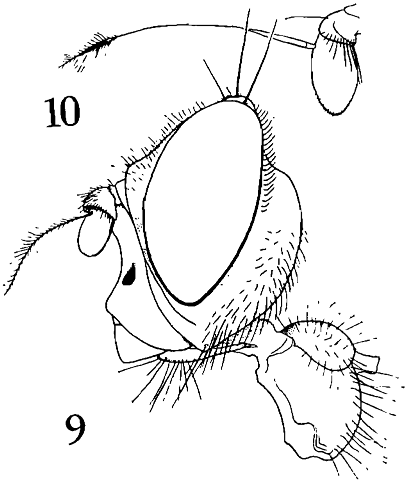

Fig. 9. *Peltacanthina liberiensis* n.sp., left profile of head of male. Fig. 10. *Pseudoscholastes marshalli* Frey, antenna of male.

Legs without long hairs except group of 6-7 on dorsum of apical half of hind femur; hairs largely brownish to blackish, those of light-coloured parts of tarsi yellow. Fore and middle tibia each with 2 or 3 short stout spinules in apical half of posteroventral surface.

Wings as in fig. 7, medium to dark brown with hyaline spots; squamae and fringe cream-colored; halter with stalk and knob brown, latter with soft apical part whitish.

Abdomen lightly covered with grayish pruinosity and rather short blackish hairs; membranous parts cream-colored.

Female: Length of wing, 5·5—6·8 mm. Similar to male; ovipositor very short, pitchy brown, shining.

Holotype, male, Zu, Liberia, 19 Dec. 1943 (F. M. Snyder); allotype, female, Moala. Liberia, 31 Oct. 1936; one paratype, female, Paiata, Liberia, Oct. 1926.

P. magnifica (Walker). 6, Cameroons (Ebolowa), Congo (Medje; Lisala; Uele River),

Plagiostenopterina Hendel

Plagiostenopterina goodi Steyskal. 1 male, Congo (Stanleyville, 22 April 1915, Lang and Chapin), det. as *P. nyassica* Enderlein. The very few characters cited by Enderlein preclude identification with this species, previously known from a single male from Cameroons (Steyskal 1963: 135). The third antennal segment is 2·75 times as long as broad.

P. submetallica (Loew). 12, Congo (Boma; Garamba; Stanleyville; Walikale), Liberia (Du River Camp No. 3; Robertsport).

P. vicaria Hendel. 5, Cameroons ("Kamerun"), Liberia (Memeh Town; Robertsport).

P. westermanni Hendel. 15, Congo (Lukolela; Stanleyville), Liberia (Ganta; Memeh Town; Monrovia), Rhodesia (Gatooma).

Pseudoscholastes Frey

Pseudoscholastes marshalli Frey (fig. 10, antenna). 1 male, Liberia (Bendu, Robertsport, 1 April 1943, F. M. Snyder). Previously known only from the female type from Sierra Leone (Frey 1932: 251) and two other female specimens reported by Steyskal (1963: 136) from Cameroons. The humeri of both sexes have only one bristle; the "7" of Frey's description may have resulted from a handwritten one in the continental style in the manuscript. The head of the female is about equal in breadth to the thorax; in the male it is one-third broader, the arista (fig. 10) is furnished with a penicillate subapical palette, and there are two small black spots on the lower head, one at lower corner of eye, and the other a short distance mesad therefrom at the lower end of the ptilinal suture.

Rivellia Robineau-Desvoidy

Rivellia acuticornis Frey. 1, Rhodesia (Salisbury).

R. euxestoides Hendel. 1, Congo (Lesse, 0° 20′ N, 29° 40′ E.).

R. latifascia Hendel. 6, Rhodesia (Chirinda forest; Lomagundi; Mt. Selinda; Salisbury; Umtali; Vumba).

R. neotera Speiser. 1, Liberia (Paiata).

R. parallela Hendel. 1, Liberia (Robertsport).

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